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ABSTRACT

Teachers continue to address the question of how to adapt instruction to recognize the existence of different learning styles yet provide quality education for all students. Traditionally, instructional models available to teachers and curriculum planners ranged along a continuum from lockstep to individualization. This definition has led to unsuccessful classroom procedures. A redefinition of instructional options views these options as two categories of adaptation: 1) instruction-based adaptation and 2) learner-based adaptation. Individualization, developing in second language instruction in the early 1970s, and Aptitude Treatment Interaction (ATI), a methodological paradigm pioneered in 1977 but with few studies in language teaching, were the forerunners of adaptation. Both can be classified as forms of instruction-based adaptation, which stresses the importance of making instruction responsive to the learner rather than making the learner responsive to the instruction. In contrast, learner-based adaptation aims at bridging the aptitude-task gap by expanding and enhancing a learner's capacities to make him more flexible in the face of varying task requirements and therefore more autonomous and system-independent. Both types of adaptation, individualization and ATI, are applicable to the language classroom, depending on the learning strategies needed and the tasks required. (MSE)

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Adaptive Instruction and Second Language Learning: The Dilemma

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Adaptive Instruction and Second Language Learning: The Dilemma

For several years now, educators have been aware of the powerful role played by learning style. Many styles having to do with cognitive processing have been identified, such as field independence vs. field sensitivity; modality, such as visual vs. auditory preference for presentation of information; and numerous other preferences or styles which continue to come to light. Sensitive teachers have made efforts to attend to these factors so that learners will not be faced with unnecessary obstacles in classrooms. Yet an essential dilemma has still not been resolved: how best should teachers adapt instruction so as to recognize the existence of these different styles and still provide quality education for all students?

The steps usually taken to determine if there is a need for instructional adaptation are as follows:

1. Identify instructional goals (task specific if possible)
2. Specify pre-instructional knowledge or skills which the learner needs in order to reach these goals
3. Assess learners' pre-instructional knowledge and skills
4. Compare 2 and 3
5. If there is any disparity, adapt in some way, e.g.
   a. redefine the task
   b. propose alternate routes for task accomplishment
   c. improve learners' knowledge and skills

Thus, we note that whenever there is incompatibility between learning task requirements and a learner's capacities, some sort of adaptation is called for. Traditionally, the instructional models available to teachers or curriculum planners ranged along a continuum from *lockstep instruction* to *individualization*. The definition of the problem in this way has led to classroom procedures which, by general consensus, have not been successful. This paper will propose a redefinition of the instructional options, seen as two categories of adaptation: *instruction-based adaptation* and *learner-based*

adaptation. The implications of these contrasting models of adaptation will be discussed with respect to programs teaching second languages in classroom settings.

INDIVIDUALIZATION AND ATI

Given what we know about the variety and complexity of human behavior, lockstep ("one way for everyone") instruction seems inappropriate for classroom settings. It is logical, therefore, for individualization of instruction to be regarded as the best type of adaptation whenever there is a learner/task mismatch. In the field of second language learning and teaching, interest in individualization developed from the early 1970s (Politzer, 1971, Geddes & Sturtridge, 1982).

Individualization has taken many forms, of which only a few need be cited:

1. matching student to teacher on some dimension, such as cognitive style
2. providing varied and optional forms of presentation of information, such as visual as well as auditory modes
3. providing self-paced programmed learning modules
4. drawing up performance contracts which specified mutually agreed-upon ends and means

Such forms of adaptation were based on a methodological paradigm known as Aptitude Treatment Interaction (ATI). The assumption underlying this methodology is that the environment can, and should, be adapted to suit the needs and capacities of learners.

ATI, pioneered by Cronbach and Snow (1977), looks at the effects of interactions between learner characteristics and instructional methods, and is opposed to the idea of "one best method" for all learners. "Aptitude" here refers to "any characteristic of a person which forecasts his probability of success under a given treatment" (Cronbach and Snow, 1977, p. 6), and includes abilities, personality variables, and also non-test variables such as age, gender, and socioeconomic status. An interaction is said to exist when a given treatment (one method or another) has one effect on one kind of person and a different effect on another kind of person. In some cases, differential assignment of persons to treatments may thus be called for. For example: all those who learn "best" using Method A go to room A with Mr. X, and those who learn "best" with Method B go to room B with Ms. Y.

Although a large number of ATI studies have been carried out during the past twenty years, there have been relatively few until recently in the field of second language acquisition. Second language research during the 1960s often involved large-scale methodological comparisons, characterized by designs, in search of the "one best method," which ignored many crucial variables, and yielded inconclusive results (Long, 1980). Such a univariate model of research, which focuses on only one variable (such as method), thus proved to be particularly inappropriate for a field such as second language acquisition, where affective as well as cognitive factors play a major role. The few ATI studies in second language classrooms (see, e.g., Hartnett, 1980) have not led to a satisfactory theory about the performance of certain types of learners under certain conditions. There seems to be a great deal of validity in the conclusion of a 1984 study by Corbett and Smith which attempted to adapt to learning style. This study underscores the difficulty of identifying and accommodating learning style differences in the foreign language classroom.

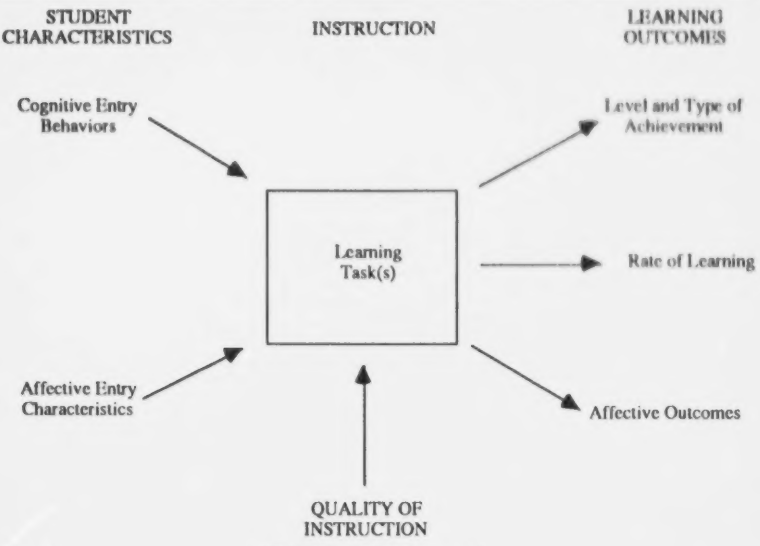
ADAPTATION: INSTRUCTION-BASED OR LEARNER-BASED?

Individualized instruction and ATI research can be classified as forms of *instruction-based adaptation*, adaptation which stresses the importance of making instruction responsive to the learner rather than vice versa. Instruction-based adaptation involves accommodating the learner's style by altering the learning environment in some way, such as differential allocation of learners to teaching methods, or by varying content presentation, pace, or practice conditions. Adaptations of this sort were advocated during the 1970s by foreign language methodologists such as Naiman (1974), Hosenfeld (1975), Nunney (1977), and Schulz (1977), who all stressed the importance of not coercing learners into a predetermined set of procedures. They also noted that failure on the learner's part due to inappropriate teaching style could then demotivate the learner (through no fault of her own), and this negative affective result might have long-term effects. Naiman (1974), for example, urged second language teachers to eliminate from their lessons any cues which might distract, demotivate, or impede the progress of learners with field dependent cognitive style. This tradition of accommodating to the learner's style, rather than "forcing" her to change, was very much in the

tradition of Dunn & Dunn (1979), who investigated learning styles and suggested specific remedies for certain types of learners. An assumption behind this philosophy of adaptation is that the student's style or preference should be accepted "as is," and should not be tampered with, or modified. To do so would be intrusive and unwarranted.

Learner-based adaptation, in contrast, aims at bridging the aptitude-task gap by expanding and enhancing a learner's capacities so as to make her or him more flexible in the face of varying task requirements, and, therefore, more autonomous and "system independent" (Merrill 1975). Instead of assuming, as Cronbach and Snow do, that the environment can and should be adapted to the individual, learner-based adaptation assumes that individuals should be enabled to adapt the environment to themselves. This position is consistent with Bloom's theory of school learning (1976) (See Figure 1). It is also in line with a recent development in educational psychology, the issue of cognitive modifiability (Brainin, 1985). Bloom holds that "the characteristics of the learners as well as the characteristics of the instruction can be modified in order to effect a higher level of learning for individuals and groups" (Bloom, 1976, p. 14). For Bloom, the learner's pre-instructional capacities, cognitive and affective, are crucial to successful classroom performance. His emphasis on the importance of prior knowledge is shared by reading and language theorists who stress the building of background knowledge and skills among readers. Psychologists who investigate cognitive modifiability are concerned with fostering "learning to learn" skills, so that the learner can be more autonomous and have more flexibility. Both these positions are not only echoed in the professional literature on second language learning and teaching in recent years, but also "fit" with the Chomskian notion of language as a system marked by rule-governed creativity. If language events are truly unpredictable, and language learners must learn to cope with the unexpected as part of the definition of their "tasks," then surely the type of adaptation which best prepares them is one which strengthens their capacities, rather than one which simplifies or modifies the task itself.

Figure 1
Major Variables in the Theory of School Learning



(Bloom, 1976, p. 11)

CHOOSING AN ADAPTATION MODEL

How, then, can teachers choose which model of adaptation is best for a particular setting? (See Table 1.) Obviously, many factors are involved. Some aspects of learning style, for example, are more modifiable than others (Schmeck & Lockhart, 1983). Very young

Table 1
Two Types of Adaptation

Instruction-Based Adaptation	Learner-Based Adaptation
Accept the learner "as is"	Do not accept the learner "as is"
Adapt the environment	Adapt the learner
Create successful experiences	Delay successful experiences

learners are especially capable of developing cognitive flexibility through exposure to different styles and alternate ways of approaching a task. We know that second language learners tend to exhibit (and claim to prefer) classroom strategies which they have been taught and which they have practiced. This rather obvious statement is meaningful in that by teaching more, and varied, strategies, we then create in learners a wider repertory of choices. Some factors may be related to second language performance but resistant to change, and therefore unworthy of classroom time and attention. A case in point would be the personality trait of extroversion/introversion. Studies have shown that extroverted learners who seek out communicative situations, generate more input, and therefore create more practice opportunities for themselves generally make faster progress in learning the target language than do introverted, non-communicative learners. Extroversion, however, is a personality variable which cannot be imposed on a learner, and such an imposition could be anxiety provoking.

Some strategies or styles, however, are so important to the task of learning a second language that we do our students a disservice if we ignore them, preferring to let each student approach the task as she sees fit. For example, in most ESL situations, oral language is an important source of input and students must learn not only to understand the flow of connected speech at normal speed, but also need the "strategic competence" (Canale & Swain, 1980) to deal with message ambiguities and communication breakdown. Likewise, in settings where written language is an important source of input, as it is almost everywhere, learners need to know the strategies which good readers use to extract meaning from text. There *is* "one best method" for teaching reading—and writing—in the sense that we need to train writers in the importance of revision, and we need to train readers in the importance of making predictions about the meaning of a text.

Finally, as many second language educators have pointed out, the classroom is a place where there is responsibility for teaching the learner, rather than just a place where communication can occur. If this means simplifying the input (instruction-based adaptation), so be it. If it means training the learner in cognitive flexibility by teaching her new strategies she never would have thought of on her own, even better. The classroom may be the only place where this latter sort of adaptation will take place.

REFERENCES

Bloom, B.S. (1976). *Human characteristics and school learning.* New York: McGraw-Hill.

Brainin, S.S. (1985). Mediating learning: Pedagogic issues in the improvement of cognitive functioning. In E.D. Gordon (Ed.), *Review of Research in Education #12* (pp. 121-155). Washington, DC: American Educational Research Association.

Canale, M. & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics 1* (1) 1-47.

Corbett, S.S., & Smith, W.F. (1984). Identifying student learning styles: proceed with caution. *The Modern Language Journal 68,* 212-221.

Cronbach, L.J., & Snow, R.E. (1977). *Aptitudes and Instructional Methods.* NY: Irvington Publishers, Inc.

Dunn, R.S., & Dunn, K.J. (1979). Learning styles/teaching styles: should they . . . Can they . . . be matched? *Educational Leadership* (Jan. 1979): 238-244.

Geddes, M. & Sturtridge, G. (Eds.) (1982). *Individualization.* London: Modern Language Publications.

Gordon, E.W., DeStefano, L., & Shipman, S. (1985). Characteristics of learning persons and the adaptation of learning environments. In M.C. Wang & H.J. Walberg (Eds.), *Adapting Instruction to Individual Differences* (pp. 44-65). Berkeley, CA: McCutchan Publishing Corporation.

Hartnett, D. (1980). The relationship of analytical and holistic cognitive styles to second language instructional methods. *Dissertation Abstracts International, 41,* 3489-A.

Hosenfeld, C. (1975). The new student role: individual differences and implications for instruction. In G.A. Jarvis (Ed.), *Perspective: A new freedom* (pp. 129-168). Skokie, IL: National Textbook Company.

Hunt, D.E. (1979). Learning style and student needs: An introduction to conceptual level. In J.W. Keefe (Ed.), *Student learning styles* (pp. 27-38). Reston, VA: National Association of Secondary School Principals.

Long, M. (1980). Inside the "black box": Methodological issues in classroom research on language learning. *Language Learning* 30: 1-42.

Keefe, J.W. (1979). Learning style: an overview. In *Student Learning Styles: Diagnosing and Prescribing Progress* (pp. 1-17). Reston, VA: National Association of Secondary School Principals.

Merrill, M.D. (1975). Learner control: beyond aptitude treatment interactions. *AV Communications Review, 23*, 217-226.

Naiman, N. (1974). Learning styles and the successful language learner. (Mimeo). Toronto: Ontario Institute for Studies in Education.

Nunney, D. N. (1977). Educational cognitive style: a basis for personalizing foreign language instruction. In R. Schulz (Ed.), *Personalizing foreign language instruction* (pp. 1-14). Skokie, IL: National Textbook Co.

Politzer, R. L. (1971). Toward individualization in foreign language teaching. *The Modern Language Journal, 55*, 207-212.

Politzer, R. L. & McGroarty, M. (1985). An exploratory study of learning behaviors and their relationship to gains in linguistic and communicative competence. *TESOL Quarterly, 19*, 103-123.

Postman, N. (1979). *Teaching as a conserving activity*. New York: Delacorte.

Reid, J.M. (1987). The learning style preferences of ESL students. *TESOL Quarterly, 21*, 87-111.

Schmeck, R. & Lockhart, D. (1983). Introverts and extroverts require different learning environments. *Educational Leadership, 40*, 54-56.

Schultz, R. (Ed.) (1977). *Personalizing foreign language instruction: Learning styles and teaching options*. Skokie, IL: National Textbook Co.